



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO.  | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/589,031   | 08/09/2006  | Richard F. Murphy    | 091395-9429-01      | 4211             |
| 23409 7590 01/28/2009<br>MICHAEL BEST & FRIEDRICH LLP<br>100 E WISCONSIN AVENUE<br>Suite 3300<br>MILWAUKEE, WI 53202 |             |                      |                     |                  |
| EXAMINER<br>ESHETE, ZEALALEM   |             |                      |                     |                  |
| ART UNIT   |             | PAPER NUMBER         |                     |                  |
| 3748   |             |                      |                     |                  |
| MAIL DATE  |             | DELIVERY MODE        |                     |                  |
| 01/28/2009   |             | PAPER                |                     |                  |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

## Application No.

10/589,031

## Applicant(s)

MURPHY ET AL.

## Examiner

Zelalem Eshete

## Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-15, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 16-18 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date 8/9/06 4/17/07
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-11,13-15,19,20 are rejected under 35 U.S.C. 102(e) as being anticipated by Hendriksma (2003/0209217).

Regarding claim 1: Hendriksma discloses a finger follower rocker arm assembly for variably activating a gas valve of an internal combustion engine having a camshaft having a central lobe and at least one lateral lobe adjacent a first side of the central lobe (figure 4), comprising: a follower body having a first end for engaging the engine and a second end for engaging a valve stem of the gas valve and having a passage formed in the body between the first and second ends and having a first bore traversing the passage (18,24); a central follower configured for engagement with the central lobe and rotatably supported in the passage by a shaft extending through the first bore and (figure 1); a first lateral follower configured to engage the at least one lateral cam lobe and pivotally supported on the shaft (46a); and a latching mechanism disposed on the follower body for selectively latching the lateral follower to the body to cause the motion

of the at least one lateral cam lobe to be translated to the body in a first rocker assembly mode having a first valve lift capability (figure 3) and for unlatching the lateral follower from the body to cause engagement of the central follower with the central camshaft lobe to provide a second rocker assembly mode having a second valve lift capability (figure 2).

Regarding claim 2: Hendriksma discloses the central follower includes an outer race with a rolling element complement positioned therein between the outer race and the shaft (28).

Regarding claim 3: Hendriksma discloses the first lateral follower includes a through bore configured to receive and pivot about the shaft, the through bore having a through bore axis co-axial with a shaft axis (figure 1, 47).

Regarding claim 4: Hendriksma discloses the first lateral follower includes a convex contact surface having an axis of rotation and wherein the axis of rotation is offset from the through bore axis (50).

Regarding claim 5: Hendriksma discloses the first lateral follower is biased toward a position in which the convex contact surface is radially outward relative to a contact surface of the central follower (48).

Regarding claim 6: Hendriksma discloses the first lateral follower includes a locking tab configured to be engaged by the latching mechanism in the first rocker assembly mode (68a).

Regarding claim 7: Hendriksma discloses the latching mechanism includes a piston axially moveable between a latched position and an unlatched position (74).

Regarding claim 8: Hendriksma discloses the latching mechanism further comprises an axially moveable locking bar and wherein in the latched position, the piston moves the locking bar into engagement with the lateral follower locking tab and in the unlatched position, the locking bar is free to move to a nonengaged position relative to the lateral follower locking tab (figures 2,3).

Regarding claim 9: Hendriksma discloses the locking bar includes a tapered contact surface (56).

Regarding claim 10: Hendriksma discloses the piston is configured to directly engage the lateral follower locking tab in the latched position (figure 3).

Regarding claim 11: Hendriksma discloses the latching mechanism further comprises a rotatable locking pin and wherein in the latched position, the piston rotates the locking pin into engagement with the lateral follower locking tab and in the unlatched

position, the locking pin is free to rotate to a nonengaged position relative to the lateral follower locking tab (figure 4, 62').

Regarding claim 13 Hendriksma discloses the piston is biased toward the unlatched position (abstract).

Regarding claim 14: Hendriksma discloses the latching mechanism includes a fluid chamber configured to receive fluid to move the piston against the bias toward the latched position (figure 4, 78).

Regarding claim 15: Hendriksma discloses the follower body includes a spherical socket configured to contact a lash adjuster and wherein the spherical socket is in fluid communication with the fluid chamber (figure 4).

Regarding claim 19: Hendriksma discloses the first lateral follower is positioned external to the passage (figure 1).

Regarding claim 20: Hendriksma discloses a second lateral follower positioned external to the passage on an opposite side of the central follower and pivotally supported on the shaft, the second lateral follower being configured to contact a second lateral cam lobe (figure 1).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hendriksma in view of Rendine (3,742,921).

Hendriksma discloses the claimed invention as recited above; however, fails to disclose stop ring.

Rendine teaches stop ring (column 2, lines 52 to 65).

It would have been obvious to one having an ordinary skill in the art at the time the invention was made to modify the system of Hendriksma by providing the well known stop ring as taught by Rendine in order to limit the stroke of the piston.

#### ***Allowable Subject Matter***

5. Claims 16-18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zelalem Eshete whose telephone number is (571) 272-4860. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Denion can be reached on (571) 272-4859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Zelalem Eshete/  
Primary Examiner, Art Unit 3748